

AF/IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: John L. WADDELL et al.

Appln. No. 10/630,897

Date Filed: July 31, 2003

For: ACOUSTIC SHOCK WAVE ATTENUATING ASSEMBLY



Art Unit: 3641

Examiner: STEPHEN JOHNSON

Washington, D.C.

Atty.'s Docket: WADDELL=1

Date: March 30, 2007

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Sir:

Transmitted herewith is a ☒ REPLY TO NOTICE OF NON-COMPLIANT APPEAL BRIEF UNDER 37 CFR 41.37 in the above-identified application.

☐ Small Entity Status: Applicant(s) claim small entity status. See 37 C.F.R. §1.27.

☒ No additional fee is required.

☐ The fee has been calculated as shown below:

(Col. 1)		(Col. 2)		(Col. 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA EQUALS	RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
TOTAL	* 10	MINUS	** 20	0	x 25	\$		x 50	\$
INDEP.	* 2	MINUS	*** 3	0	x 100	\$		x 200	\$
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM					+ 180	\$		+ 360	\$
					ADDITIONAL FEE TOTAL			TOTAL	
							\$		

* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.

** If the "Highest Number Previously Paid for" IN THIS SPACE is less than 20, write "20" in this space.

*** If the "Highest Number Previously Paid for" IN THIS SPACE is less than 3, write "3" in this space.

The "Highest Number Previously Paid For" (total or independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment of the number of claims originally filed.

☒ Conditional Petition for Extension of Time

If any extension of time for a response is required, applicant requests that this be considered a petition therefor.

☐ It is hereby petitioned for an extension of time in accordance with 37 CFR 1.136(a). The appropriate fee required by 37 CFR 1.17 is calculated as shown below:

Small Entity

Response Filed Within

☐ First - \$ 60.00

☐ Second - \$ 225.00

☐ Third - \$ 510.00

☐ Fourth - \$ 795.00

Month After Time Period Set

Other Than Small Entity

Response Filed Within

☐ First - \$ 120.00

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☐ Fourth - \$ 1590.00

Month After Time Period Set

☐ Less fees (\$_____) already paid for ____ month(s) extension of time on _____.

☐ Please charge my Deposit Account No. 02-4035 in the amount of \$_____.

☐ Credit Card Payment Form, PTO-2038, is attached, authorizing payment in the amount of \$_____.

☐ A check in the amount of \$_____ is attached (check no.).

☒ The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. 02-4035. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intended to include all fees for the presentation of extra claims under 37 CFR §1.16 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

John L. Waddell Jr., et al

Application No. 10/630,897

Filed: July 31, 2003

ACOUSTIC SHOCK WAVE ATTENUATING ASSEMBLY

Examiner: Stephen Johnson
Art Unit: 3641

APPEAL BRIEF

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The present appeal is taken from the Notice of Panel Decision from Pre-Appeal Brief Review mailed May 30, 2006, in rejecting claims 13, 14, and 17-22. The specific rejections were made in an Office Action mailed April 4, 2006. A clean copy of these claims, double-spaced, appears in the Appendix to this Brief.

REAL PARTY IN INTEREST

The assignee of the subject application is BlastGard Technologies, Inc., 12900 Automobile Boulevard, Suite D, Clearwater, Florida 33762. The assignment was recorded in the U.S. Patent and Trademark Office on February 13, 2004, under Reel 014976, Frame 0836.

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RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

In re Appln. No. 10/630,897

STATUS OF THE CLAIMS

Claims 1-12 have been cancelled.

Claims 13, 14 and 17-22 are rejected.

Claims 15 and 16 are withdrawn.

The rejection of claims 13, 14 and 17-22 is
appealed.

In re Appln. No. 10/630,897

STATUS OF AMENDMENTS

The amendment filed February 27, 2006, has not been entered.

The amendment filed March 23, 2006 has been entered. An Office Action responsive to the amendment filed March 23, 2006, was mailed April 4, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter claimed is a shock-attenuating assembly that is sufficiently flexible to wrap around any shaped structure. The assembly comprises:

(a) a first film of flexible resin material which is optionally water-impermeable or coated with water-impermeable material;

(b) a second film of flexible resin material which is optionally water-impermeable or is coated with a water-impermeable material, wherein the second film has attached pockets spaced from each other along the second film;

(c) wherein the first and second films are optionally porous with respect to at least one of acoustic wave, shock waves, or gas;

(d) wherein the second film has attached pockets spaced from each other along the second film;

(e) the first film is attached to the second film by a plurality of seams that surround the spaced pockets such that the assembly is sufficiently flexible to surround any shaped structure, and the assembly can be cut along the seams without losing any shock-attenuating material; and

(f) each of the pockets is filled with a shock-attenuating material having the flow properties of a liquid.

Support for this can be found in the specification as filed at paragraph 0016 on page 6, paragraph 0018 on page 7, paragraph 0021 on page 8 and paragraph 0023 on page 9.

The shock attenuating material can be perlite (paragraph 0024, page 9), an aqueous foam (paragraphs 0040 and 0041, page 14), an aerogel (paragraph 0029, page 11).

Optionally, the pockets of the shock attenuating assembly can contain at least one of fireproofing materials, heat insulating materials, intumescent materials, and radiation insulating materials (paragraph 0019, page 7).

Claim 13 is drawn to a shock-attenuating assembly that is sufficiently flexible to wrap around any shaped structure [paragraph 0018, page 7] comprising, in combination,

(a) a first film of flexible resin material, wherein said first film of flexible resin material is optionally water-impermeable or is optionally coated with a water-impermeable material [paragraph 0020, page 8];

(b) a second film of flexible resin material, wherein said second film of flexible resin material is optionally water-impermeable or is optionally coated with a water-impermeable material, wherein said second film of flexible resin material has attached pockets spaced from each other along the second film [paragraph 0020, page 8];

(c) the first film attached to the second film via a plurality of seams, wherein the seams surround each of the spaced pockets in such a manner as to make the assembly sufficiently flexible to surround any shaped structure [paragraph 0016, page 6; paragraph 0018, page 7];

(d) each of the pockets filled with a shock wave attenuating material having the flow properties of a liquid [paragraphs 0023-0027, pages 9 and 10]. Also see Figure 1.

Claim 22 is drawn to a flexible shock-attenuating assembly comprising in combination:

(a) a first strip of a water-impermeable polyamide resin material [paragraph 0039, page 13]

(b) a second strip of a water-impermeable polyamide resin material, said second strip having attached pockets spaced from each other along the second strip [paragraph 0016, page 6];

the first strip attached to the second strip via a plurality of seams, the seams surrounding each of the spaced pockets in such a way as to make the assembly flexible [paragraph 0018, page 7].

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 13 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Colle, U.S. Patent No. 4,184,788.

Claims 13 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munch, U.S. Patent No. 4,700,706 in view of Colle.

Claims 13 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Poux, U.S. Patent No. 2,602,302.

Claims 13, 17 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ava, U.S. Patent No. 3,795,994.

Claims 13, 17, 18, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bertram, U.S. Patent No. 4,716,598.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram in view of Symons, U.S. Patent No. 5,309,690.

ARGUMENT

I. Colle, U.S. Patent No. 4,184,788 Does Not Anticipate Claims 13 and 17-22.

The Examiner alleges that Colle describes an assembly comprising:

- (a) a first film of a flexible resin material (54, column 4, lines 3-8);
- (b) a second film of flexible resin material (53, column 4, lines 3-8);
- (c) pockets (Figures 1, 2);
- (d) a plurality of seams (57);
- (e) a shock wave attenuating material (column 4, lines 23-42).

Contrary to the Examiner's assertion, Colle only discloses materials that include any of the conventionally known cementitious slurries, which can harden when disposed under a body of water; or various forms of commercially available flowable asphalts (column 4, lines 39-42). This is not at all the same as the shock-attenuating material claimed herein. As recited in claim 13, the shock attenuating material has the flow properties of a liquid. It is clear from Colle that the filler for the pockets is a material that can harden when disposed under a body of water. The Colle device is a form for erosion control structures, and the only time the material added is flowable is when it is introduced

into the pockets so that the material flows into the pockets and fills the entire space (column 4, lines 36-38).

According to IPCS, International Programme on Chemical Safety, a collaborative venture of the World Health Organization, United Nations Environment Programme, and the International Labour Organisation, the melting point of asphalts is 54-173°C. Even if the asphalt is flowable, it is still a solid at ambient temperatures, and it is characterized as a solid.

Thus, it is clear that the hardened cementitious slurries or commercially available flowable asphalts cannot possibly be a shock attenuating material as claimed herein.

Is respectfully submitted that the material of Colle is not the type of shock-attenuating material that would be useful in a shock-attenuating assembly as claimed herein. In the present application, in paragraph 0025, the term "mechanical properties and flow properties of a fluid" refers to the ability to the attenuating medium to act in the nature of a liquid to resist relative displacement by surface tension and viscous forces, as well as the ability to substantially scatter and disperse pressure conditions transmitting therethrough by virtue of multitudinous curved surfaces dividing gaseous and solid or liquid phases, and enabling the generation of turbulent flow fields by transmitting pressure

conditions. More briefly, these terms may be taken as referring to the ability to resist applied shear forces in the nature of fluid viscosity. The attenuating medium assumes the shape of the cells or recesses, while at the same time resisting applied shear forces in the nature of viscosity.

The shock-attenuating assembly claimed herein is for attenuating shock waves from blasts resulting from explosive devices and the like. Explosive devices produce blast fragments emanating both from the device and from material close to the point of explosion. Additionally, explosive devices produce shock waves, which produce the highly damaging phenomenon known as "blast." Pressure waves can be reflected and diffracted by phase boundaries, such as liquid droplets or solid particulates suspended in air. These deflections serve to increase the distance that the wave travels by a process of multiple reflections and diffractions. Scattering and dispersion thus produce more attenuation because they smear the discontinuity leading the shock wave, the result of which is a significant drop in pressure in the material.

The mechanisms of the shock attenuating materials used in the herein claimed shock attenuating assembly are discussed in the specification at paragraphs 0045 through 0049. When the blast attenuating material is an aqueous foam, substantial energy is removed from an incident pressure wave

by scattering at the multiple interfaces presented by bubble wall liquids and the entrapped gas which comprise the basic units of aqueous foam structures, and through the displacement of the liquid in the aqueous foam. A similar effect is obtained when solid bed materials are used, particularly solids with entrained gas, such as vermiculite and organic solid foams. Additional energy and thus attenuating of transmitting pressure waves is accomplished by cancellation. The decay of the wave is related to the work done as the wave travels through the medium and how long it remains in the medium. Perlite and foam shock absorbing materials dramatically reduce the sound speed of the shock, as scattered, slowed, and reflected waves become coincident. The propagation paths of pressure waves through the shock absorbing material are substantially lengthened by their scattering and disposition.

It is clear from the specification that the presently claimed assembly is for blast or shock attenuation, not for any other purpose. The preamble of the claims, "A shock-attenuating assembly", defines the invention, which is further characterized by the fact that the assembly includes "a shock wave attenuating material having the flow properties of a liquid." As the Federal Circuit stated in *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc*, 868 F.2d 1251, 9 USPQ2d

1962 (Fed. Cir. 1989): "The determination of whether preamble recitations are structural limitations or mere statements of purpose or use can be resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim."

The present case is similar to the situation in *Corning*, supra, in that the defendant alleged that the claim was anticipated by a disclosure of a substantially transparent luminescent glass in the form of a fiber comprised of a doped silica core having a sheath of silica. Although nothing in the cited patent discussed the use of the fiber as an optical waveguide, the defendant alleged that the fiber "inherently" could function as a waveguide. In *Corning*, the plaintiff defined the preamble words "an optical waveguide" in the specification. In *Corning*, it was clear from the specification that the inventors were working on the particular problem of an effective optical communication system, not on general improvements in conventional optical fibers. "To read the claim in light of the specification indiscriminately to cover all types of optical fibers would be divorced from reality. The invention is restricted to those fibers that work as waveguides as defined in the specification, which is not true with respect to fibers constructed with the limitations of paragraph (a) and (b)

only. Thus, we conclude that the claim preamble in this instance does not merely state a purpose or intended use of the claimed structure... Rather, those words do give 'life and meaning' and provide further positive limitations to the invention claimed."

In a similar manner, the present specification defines a shock-attenuating assembly as one providing shock wave, and therefore blast, attenuation capabilities in both confined spaces and unconfined areas, as described in paragraphs 0016 and 0020. The problems in dealing with explosive devices are presented in great detail in the "Background" section of the present application, at paragraphs 0002 to 0005.

According to IPCS, International Programme on Chemical Safety, a collaborative venture of the World Health Organization, United Nations Environment Programme, and the 'International Labour Organisation, the melting point of asphalts is 54-173°C. Even if the asphalt is flowable, it is still a solid at ambient temperatures, and it is characterized as a solid.

Thus, it is clear that the hardened cementitious slurries or commercially available flowable asphalts cannot possibly be a shock attenuating material as claimed herein.

II. Claims 13 and 17-22 Are Not Obvious Over Munch, U.S. Patent No. 4, 700, 706 in View of Colle, U.S. Patent No. 4,184,788.

The Examiner's position is that Munch discloses an assembly comprising:

- (a) a first film of flexible material (5);
- (b) a second film of a flexible material (3);
- (c) pockets (Figures 1-3);
- (d) a plurality of seams (column 3, lines 17-26);
- and
- (e) a shock wave attenuating material (column 3, lines 40-67.

Colle is cited for showing a flexible film that is a polyamide.

The Examiner asserts that Munch discloses a shock wave attenuating material at column 3, lines 40-67. In reality, Munch at column 3, lines 40-42, discloses that the filling 2 comprises a substantially non-flowable mixture of water, glycol, salt and finely dispersed silicic acid. [emphasis added] In contrast thereto, the shock attenuating material recited in the claims at bar has the flow properties of a liquid. Thus, Munch teaches away from the presently claimed assembly. Munch discloses a pack for hot and cold therapy, and has nothing at all to do with shock attenuation.

Colle adds nothing to Munch, because, as noted above, Colle also discloses an assembly in which the pockets

are filled with a solid material. With respect to the showing in Colle that the film can be polyamide, it is respectfully submitted that this showing only applies to claim 22, the only claim that recites that the film is a polyamide resin.

III. Claims 13 and 17-22 Are Not Anticipated By Poux, U.S. Patent No. 2,602,302.

The Examiner states that Poux discloses an assembly comprising:

- a. a first film of a flexible polyamide material (10 or 7);
- b. a second film of a flexible polyamide material (11 or 8);
- c. pockets (see Figures 6, 7, 8);
- d. a plurality of seams (6, column 3, lines 40-576); and
- e. a shock wave attenuating material (column 4, line 7).

As noted above, the assembly claimed herein is a blast mitigating assembly which includes a blast-mitigating material enclosed in pockets on a flexible laminate. Poux discloses a combination ice and hot pack that consists of independent and sealed fluid-containing compartments, with the compartments spaced from each other by a relatively wide and flat, thin web of material whereby the article is so flexible that it can be folded upon itself whether the compartments contain a hot fluid or a solidly frozen fluid (column 2, lines

1-9). When the fluid inside the pack is frozen, it cannot possibly act as a material having the flow properties of a liquid. Additionally, there is no indication in Poux that water, either in liquid or solid form, is a suitable blast-attenuating material.

In the present application, the claim preamble defines the invention for which patent protection is sought, namely, "a flexible shock-attenuating assembly." It is well settled that a "claim preamble has the import that the claim as a whole suggests ** for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. See *id.*; *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." *Corning Glass Works*, 868 F.2d at 1257. The inquiry involves examination of the entire patent record to determine what invention the patentee intended to define and protect. See *Bell Communications*, 55 F.3d at 621 (looking to patent specification to determine whether claimed invention includes preamble recitations); *In re Paulsen*, 30 F.3d 1475, 1479, 31

USPQ2d (BNA) 1671, 1674 (Fed. Cir. 1994) (examining "patent as a whole"); *Vaupel Textilmaschinen KG v. Meccanica Euro Italia SPA*, 944 F.2d 870, 880, 20 USPQ2d (BNA) 1045, 1053 (Fed. Cir. 1991) (looking to claims, specification, and drawings); *Gerber Garment Tech., Inc. v. Lectra Sys., Inc.*, 916 F.2d 683, 689, 16 USPQ2d 1436, 1441 (Fed. Cir 1990) (noting that preamble recitations provided antecedent basis for terms used in body of claim); *Corning Glass Works*, 868 F.2d at 1257 (considering the specification's statement of the problem with the prior art); *Kropa v. Robie*, 38 CCPA 858 F.2d 150, 152, 88 USPQ 478 (1951), (noting that preamble sets out distinct relationship among remaining claim elements).

IV. Claims 13, 17 and 19-21 Are Not Anticipated by Ava, U.S. Patent No. 3,795,994.

The Examiner states that Ava discloses an assembly comprising:

- (a) a first film of a flexible resin material (1, column 1, lines 18-23);
- (b) a second film of a flexible resin material (2, column 1, lines 18-23);
- (c) pockets (see Figures 1-6);
- (d) a plurality of seams (4, 5, 6, 7); and
- (e) a shock wave attenuating material (column 2, lines 16-18).

Ava discloses air-cushion socks. The air cushioning comprises two relatively thin superposed sheets of polyvinyl chloride or other suitable heat-weldable materials, the sheets

being die-cut to the desired shape and welded along their edges to form separate compartments, each compartment containing a sufficient quantity of air, column 1, lines 19-26.

The claims of the present application recite that the pockets are filled with **shock-attenuating material**. As stated in paragraph 0023, the shock attenuating material claimed is a flowable medium which impedes shocks... Substantial energy from the shock wave is absorbed by the attenuating medium, enhanced by confinement within the cells or recesses. It is self-evident that the shock attenuating material is not air, because if it were air, there would be no reason to have a shock attenuating assembly.

The introductory language in the claims, "a flexible shock attenuating assembly", as in *In re Bulloch*, 604 F.2d 1362, 203 USPQ 171 (CCPA 1979), is more than a mere statement of purposes. That language is essential to particularly point out the invention defined by the claims. See *Kropa v. Robie*, 38 CCPA 858, 187 F.2d 150, 88 USPQ 478 (1951). As in *Bulloch*, the claims must be read in the light of the specification and the declarations of record. It is clear that the intent of applicants is to limit the claims to flexible shocks-attenuating assemblies. The cushion of Ava is not a shock

attenuating assembly containing a shock attenuating material, as the Ava cushions contain only air.

V. Claims 13, 17, 18, 20 and 22 Are Not Anticipated by Bertram, U.S. 4,716,598.

The Examiner's position is that Bertram discloses an assembly comprising:

- (a) a first film of a flexible polyamide material (17; column 2, lines 46-47);
- (b) a second film of a flexible polyamide material (19; column 2, lines 46-47);
- (c) pockets (see figures 1, 2);
- (d) a plurality of seams (e); and
- (e) a shock wave attenuating material (21; column 2, line 48).

First of all, it should be noted that only claim 22 recites that the film of flexible resin material is polyamide, the "flexible film" of which the two layers of fabric are comprised.

Bertram discloses a heat-insulating fabric article comprising at least two layers of flexible fabric secured together by a plurality of spaced apart seams arranged in a network across the fabric to form columns or rows of pockets, wherein said pockets are each substantially filled with closed particles of polystyrene, the amount of polystyrene filing in each pocket being sufficient to occupy the space therein to

permit movement of the particles one against the other but to resist migration thereof to other regions of the pocket (column 1, lines 33-44). In one embodiment, described at column 2, line 48, the filling in the pockets comprises polyester beads. It is not understood how polyester beads could be considered to be shock-absorbing material, since Ava clearly states that the filling in the pockets is for heat insulation. There is no suggestion of shock attenuation in the jacket.

VI. Claim 14 is Not Unpatentable Under 35 U.S.C. 103(a) Over Bertram in View of Symons, U.S. 5,309,690.

The Examiner concedes that Bertram does not disclose a shock wave attenuating material that is perlite. Applicant is said to substitute one enclosed aggregate material for another in an analogous art setting as explicitly encouraged by both the secondary references (see column 5, lines 12-20 of Symons).

As discussed *supra*, there is nothing in Bertram that even suggests a shock attenuating assembly, as Bertram only discloses a heat-insulating jacket. Symons adds nothing to this disclosure other than to state that inorganic insulating material can be exfoliated vermiculite, expanded perlite, mineral wool, expanded clay, expanded fly ash, glass fiber, expanded graphite, expanded silicate, zeolite or glass foam, or a mixture of two or more thereof. These materials provide

an insulating and fire-proof filing for the open cellular core of the composite panel.

It is not seen how one skilled in the art would expect to put the insulating materials in Symons into the pockets of Bertram's heat-insulating jacket. There is nothing in Symons that suggests substituting inorganic insulating material for polystyrene or polyester beads. In fact, given that the inorganic minerals recited in Symons may be rigid and sharp edged, one would not expect that they would be used for insulating a jacket to be worn. Moreover, Symons also discloses that the cores of the panel are filled with a material which releases water at elevated temperatures, in addition to the inorganic material. The purpose of these materials is to reduce the temperature in the panel in the event of a fire.

Symons discloses a composite panel to be used for a building panel. The purpose of the core material is for heat and sound insulation, not for shock attenuation. While the Bertram jacket is designed to be heat insulating, there is no motivation to combine Bertram with Symons, because such a combination would result in a jacket filled with a cellular core sandwiched between the two layers of fabric, the cellular core containing a natural fiber material and a filler composition comprising a mixture of an inorganic insulating

material and a material which releases water at elevated temperatures. This is certainly not the shock attenuating assembly as claimed herein.

The declaration of one of the inventors, James Gordon, was submitted with the amendment filed March 23, 2006, in order to demonstrate that the herein claimed invention satisfied a long-felt need for material that can be readily used to absorb the effects of a blast, and that can be readily conformed to any desired shape and size. The U.S. government has placed BlastGard, maker of BlastWrap, the product covered by the present claims, as the sole source. BlastGard is the only U.S. company that offers a bomb resistant trash receptacle.

VII. With respect to claims 13, 14 and 17-22, none of Colle, U.S. 4,184,788; Munch, U.S. 4,700,706; Poux, U.S. 2,602,302; Ava, U.S. 3,795,994; Bertram, U.S. 4,716,598; or Symons, U.S. 5,309,690, either alone or in any combination, anticipates or makes obvious the invention claimed in claims 13, 14 and 17-22.

There is nothing in any of the patents cited above that even suggests that the assemblies disclosed therein can be used for blast protection. It is well settled law that claims are to be construed in light of the specification, and both are to be read with a view to ascertaining the invention, *Seymour v. Osborne*, 11 Wall. 516, 547 (1861); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211 (1940); *Schering Corp. v. Gilbert*, 153 F.2d 428 (1946). It is clear from the

specification and claims of the present application that applicants claim a shock-attenuating assembly that is designed to protect objects and environments from the effects of a blast or explosion. Trash receptacles in the D.C. area Metro system are lined with a flexible assembly as claimed herein.

The Examiner has cited no references that disclose the invention claimed herein, namely, a blast attenuating assembly sufficiently flexible to wrap around any shaped structure, comprising a first and second film of flexible material that are optionally water-impermeable or treated with a water-impermeable material, wherein the first film is attached to the second film by a plurality of seams forming pockets between the two films, and wherein each of the pockets is filled with a shock wave attenuating material having the flow properties of a liquid.


CONCLUSION

For the reasons given above, it is respectfully submitted that the claims at bar are allowable over the cited art.

Applicant respectfully requests reversal of the Examiner's rejections.

Respectfully submitted,

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CLAIMS APPENDIX

This listing of claims includes all of the claims involved in the appeal.

Listing of Claims:

13. A shock-attenuating assembly that is sufficiently flexible to wrap around any shaped structure, said assembly comprising, in combination,
- (a) a first film of flexible resin material, wherein said first film of flexible resin material is optionally water-impermeable or is optionally coated with a water-impermeable material;
 - (b) a second film of flexible resin material, wherein said second film of flexible resin material is optionally water-impermeable or is optionally coated with a water-impermeable material, wherein said second film of flexible resin material has attached pockets spaced from each other along the second film;
 - (c) the first film attached to the second film via a plurality of seams, wherein the seams surround each of the spaced pockets in such a manner as to make the assembly sufficiently flexible to surround any shaped structure;

- (d) each of the pockets filled with a shock wave attenuating material having the flow properties of a liquid.

14. The flexible shock-attenuating assembly according to claim 13 wherein the shock attenuating material is perlite.

17. The flexible shock-attenuating assembly according to claim 13 further including within the pockets at least one material selected from the group consisting of fireproofing materials, heat insulating materials, intumescent materials, and radiating insulating materials.

18. The flexible shock-attenuating assembly according to claim 13 further including within the pockets a fire retarding material.

19. The flexible shock-attenuating assembly according to claim 13 wherein the assembly is adapted and constructed so that the assembly can be cut along the seams so that shock attenuating material remains confined in the pockets.

20. The flexible shock-attenuating assembly according to claim 13 wherein the flexible films are porous with respect to at least one of acoustic waves, shock waves, or gas.

21. The flexible shock-attenuating assembly according to claim 13 wherein the flexible sheets are water-impermeable.

22. A flexible shock-attenuating assembly comprising in combination:

- (a) a first strip of a water-impermeable polyamide resin material;
- (b) a second strip of a water-impermeable polyamide resin material, said second strip having attached pockets spaced from each other along the second strip;

the first strip attached to the second strip via a plurality of seams, the seams surrounding each of the spaced pockets in such a way as to make the assembly flexible.

EVIDENCE APPENDIX

AVA, U.S. Patent No. 3,795,994, March 12, 1974.

BETRAM, U.S. Patent No. 4,716,598, January 5, 1988.

COLLE, U.S. Patent No. 4,184,788, January 22, 1980.

Declaration of James Gordon and papers submitted, and a
statement that the evidence was inserted in the record by
the Examiner March 23, 2006.

MUNCH, U.S. Patent No. 4,700,706, October 20, 1987.

POUX, N. J., U.S. Patent No. 2,602,302, June 13, 1947.

In re Appln. No. 10/630,897

RELATED PROCEEDINGS APPENDIX

There are no related proceedings in connection with the subject application.